6JR6

Beam Power Tube

Novar Type

For Horizontal-Deflection-Amplifier Service in Low-B+, Black-and-White TV Receivers

ELECTRICAL CHARACTERISTICS – Bogey Values

Heater Voltage, ac or dc.	E_h	6.3	V
Heater Current	I_h	1.6	A
Direct Interelectrode Capacitances:[a]			
Grid No.1 to plate	c_{g1-p}	0.7	pF
Input: G1 to (K,G3,G2,H)	c_i	22.0	pF
Output: P to (K,G3,G2,H)	c_o	9.0	pF

For the following characteristics, see Conditions below:

Amplification Factor (Triode Connection)[b]	μ	-	-	4.7	-	
Plate Resistance (Approx.)	r_p	-	-	-	18	kΩ
Transconductance	g_m	-	-	-	7000	µmho
DC Plate Current	I_b	-	470[c]	-	45	mA
DC Grid-No.2 Current	I_{c2}	-	32[c]	-	1.5	mA
Cutoff DC Grid-No.1 Voltage for I_b = 1 mA	$E_{c1(co)}$	-75	-	-	-32	V
Conditions:						
Heater Voltage	E_h	Bogey value				V
Peak Positive-Pulse Plate Voltage[d]	e_{bm}	6500	-	-	-	V
DC Plate Voltage	E_b	-	50	125	130	V
Grid No.3	-	Connected to cathode at socket				
DC Grid-No.2 Voltage	E_{c2}	125	125	125	125	V
DC Grid-No.1 Voltage	E_{c1}	-	0	-20	-20	V

MECHANICAL CHARACTERISTICS

Maximum Overall Length.	3.130 in (79.50 mm)
Maximum Seated Length	2.750 in (69.85 mm)
Maximum Diameter	1.562 in (39.67 mm)
Envelope	JEDEC Designation T12
Dimensional Outline	JEDEC Designation 12-96
Base[e]	Large-Button Novar 9-Pin with Exhaust Tip (JEDEC Designation E9-88)
Terminal Connections (See TERMINAL DIAGRAM)	JEDEC Designation 9QU
Type of Cathode	Coated Unipotential
Operating Position	Any

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MAXIMUM RATINGS – Design Maximum Values[f]

For operation as a Horizontal-Deflection-Amplifier Tube in a 525-line, 30-frame system

DC Plate Supply Voltage	E_{bb}	770	V
Peak Positive-Pulse Plate Voltage[g]	e_{bm}	6500	V
Peak Negative-Pulse Plate Voltage	$-e_{bm}$	1500	V
DC Grid-No.3 Voltage[h]	E_{c3}	75	V
DC Grid-No.2 (Screen-Grid) Voltage	E_{c2}	220	V
DC Grid-No.1 (Control-Grid) Voltage:			
Negative-bias value	$-E_{c1}$	55	V
Peak Negative-Pulse Grid No.1 Voltage	$-e_{c1m}$	330	V
Heater-Cathode Voltage:			
Peak	e_{hkm}	±200	V
Average	$E_{hk(av)}$	100	V
Heater Voltage, ac or dc	E_h	5.7 to 6.9	V
Cathode Current:			
Peak	i_{km}	950	V
Average	$I_{k(av)}$	275	V
Grid-No.2 Input	P_{g2}	3.5	V
Plate Dissipation[k]	P_b	17	V
Envelope Temperature (at hottest point on envelope surface) . . .	T_E	240	°C

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance: Rg1(ckt)		
For grid-No.1-resistor-bias operation	0.47	MΩ
For plate-pulsed operation (horizontal-deflection circuits only)	10	MΩ

a Measured without external shield in accordance with the current issue of EIA Standard RS-191.

b With Grid No.2 connected to plate at socket.

c This value can be measured by a method involving a recurrent waveform such that the Maximum Ratings of the tube will not be exceeded.

d Under pulse-duration condition specified in Footnote g.

e Designed to mate with "Novar 9-contact" Socket generally available from your local RCA Distributor.

f As defined in the current issue of EIA Standard RS-239.

g This rating is applicable where the duration of the voltage pulse does not exceed 15% of one horizontal scanning cycle. In a 525-line, 30-frame system, 15% of one horizontal scanning cycle is 10 μs.

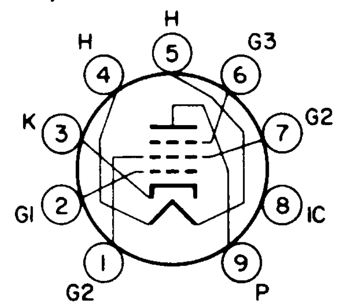
h In horizontal-deflection-amplifier service, a positive voltage may be applied to grid No.3 to reduce interference

from "snivets" which may occur in both vhf and uhf television receivers. A typical operating value for this voltage is 30 V.

k An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

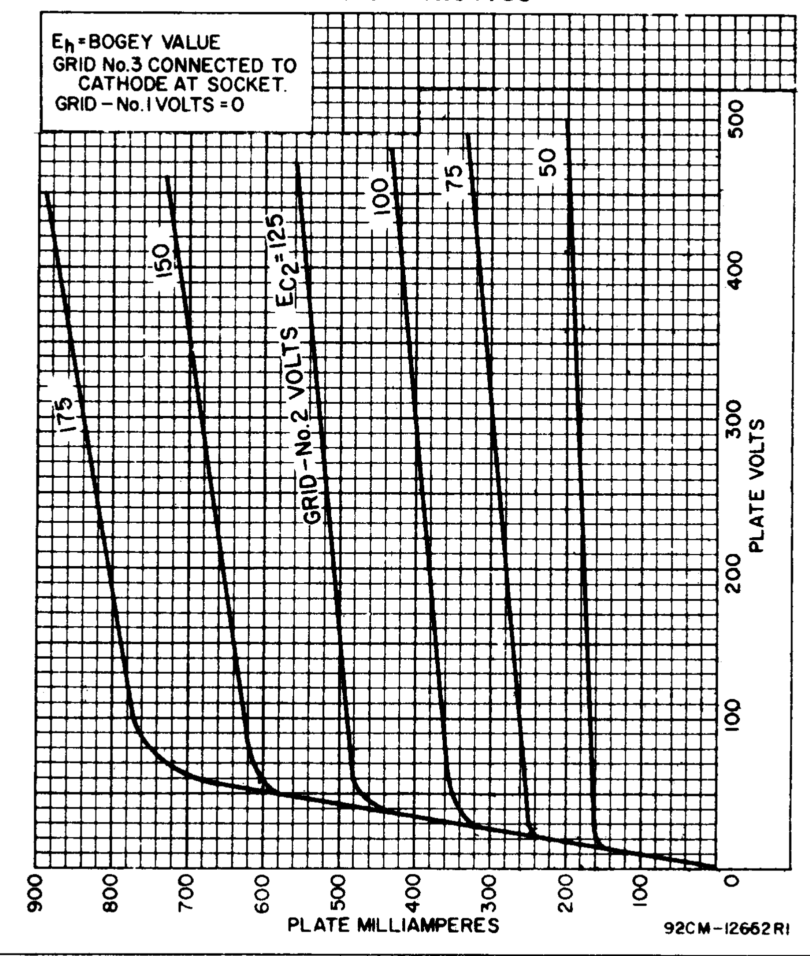
TERMINAL DIAGRAM (Bottom View)

Pin 1 - Grid No.2
Pin 2 - Grid No.1
Pin 3 - Cathode
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Grid No.3
Pin 7 - Grid No.2
Pin 8 - Do Not Use
Pin 9 - Plate



JEDEC 9QU

TYPICAL PLATE CHARACTERISTICS



92CM-12662R1

TYPICAL CHARACTERISTICS

